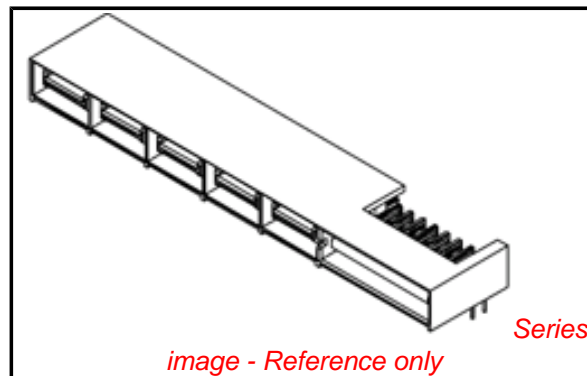


PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0459858111](#)
Status: **Active**
Overview: [extreme_lphpower](#)
Description: 1.27mm (.050"), 12.00mm (.472") Pitch, EXTreme LPHPower™ Header, Right Angle, 8 Power Contacts, 12 Signal Contacts, Select Gold (Au) Plating, for 3.18mm (.125") Thick PC Board

Documents:

[3D Model](#) [Product Specification PS-45984-001 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)



Agency Certification

| | |
|-----|----------|
| CSA | LR19980 |
| TUV | 30683046 |
| UL | E29179 |

General

| | |
|----------------|----------------------------------|
| Product Family | PCB Headers |
| Series | 45985 |
| Application | Board-to-Board |
| Overview | extreme_lphpower |
| Product Name | EXTreme LPHPower™ |

Physical

| | |
|--------------------------------|-------------------------------------|
| Breakaway | No |
| Circuits (Loaded) | 20 |
| Circuits (maximum) | 20 |
| Circuits Detail | 8 Power, 12 Signal |
| Color - Resin | Black |
| Durability (mating cycles max) | 250 |
| First Mate / Last Break | Yes |
| Flammability | 94V-0 |
| Glow-Wire Compliant | No |
| Guide to Mating Part | No |
| Keying to Mating Part | None |
| Lock to Mating Part | No |
| Material - Metal | Brass, High Performance Alloy (HPA) |
| Material - Plating Mating | Gold |
| Material - Plating Termination | Tin |
| Material - Resin | High Temperature Thermoplastic |
| Number of Rows | 2 |
| Orientation | Right Angle |
| PC Tail Length (in) | 0.177 In |
| PC Tail Length (mm) | 4.50 mm |
| PCB Locator | No |
| PCB Retention | None |
| PCB Thickness Recommended (in) | 0.125 In |
| PCB Thickness Recommended (mm) | 3.18 mm |
| Packaging Type | Tray |
| Pitch - Mating Interface (in) | 0.050 In, 0.472 In |
| Pitch - Mating Interface (mm) | 1.27 mm, 12.00 mm |
| Plating min: Mating (µin) | 30 |
| Plating min: Mating (µm) | 0.75 |
| Plating min: Termination (µin) | 150, 50 |
| Plating min: Termination (µm) | 1.25, 3.75 |
| Polarized to Mating Part | Yes |

EU RoHS

ELV and RoHS Compliant

REACH SVHC

Contains SVHC: No

Halogen-Free

Status

Halogen-Free

Need more information on product environmental compliance?

Email productcompliance@molex.com
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

China RoHS



Search Parts in this Series

[45985Series](#)

Mates With

[45984](#) EXTreme LPHPower™ PCB Receptacles

| | |
|--------------------------------|-----------------|
| Polarized to PCB | Yes |
| Shrouded | Fully |
| Stackable | No |
| Surface Mount Compatible (SMC) | Yes |
| Temperature Range - Operating | -40°C to +105°C |
| Termination Interface: Style | Through Hole |

Electrical

| | |
|-------------------------------|------------------|
| Current - Maximum per Contact | 23A |
| Voltage - Maximum | 250V AC (RMS)/DC |

Solder Process Data

| | |
|--|------------------------|
| Duration at Max. Process Temperature (seconds) | 20 |
| Lead-free Process Capability | Wave Capable (TH only) |
| Max. Cycles at Max. Process Temperature | 3 |
| Process Temperature max. C | 260 |

Material Info

Reference - Drawing Numbers

| | |
|-------------------------|--------------|
| Packaging Specification | PK-45984-001 |
| Product Specification | PS-45984-001 |
| Sales Drawing | SD-45985-800 |

This document was generated on 05/25/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

6

5

4

3

2

1

NOTES:

1. MATERIAL: HOUSING:LCP, 94V-0,COLOR-BLACK
POWER CONTACT: COPPER ALLOY
SIGNAL CONTACT: PHOSPHOR BRONZE
2. FINISH: SELECT GOLD 0.76µM/30 MI MIN, IN CONTACT AREA
SELECT TIN 3.81µM/150 MI MIN, IN PC TAIL AREA
BOTH OVER NICKEL 1.27µM/50 MI MIN.
3. PRODUCT SPECIFICATION: PS-45984-001
4. PACKAGING SPECIFICATION: TRAY PER PK-45984-001
5. SEE SHEET 5 FOR CIRCUIT IDENTIFICATION
6. PARTS ARE RoHS COMPLIANT.
7. PEG HOLES ARE OPTIONAL PCB FEATURES AND ARE REQUIRED ONLY WITH THE PEGGED HOUSING OPTIONS.
8. MATES WITH RECEPTACLE SERIES 45984-8***.

| NO OF SIGNAL | MATERIAL NUMBER | DIM A REF | DIM P | PCB THK |
|--------------|-----------------|-----------|-------|---------|
| 12 | 45985-8111 | 60.16 | 4.50 | 3.18 |
| 16 | 45985-8121 | 62.70 | | |
| 20 | 45985-8131 | 65.24 | | |
| 24 | 45985-8141 | 67.78 | | |
| 28 | 45985-8151 | 70.32 | | |
| 32 | 45985-8161 | 72.86 | 3.90 | 2.36 |
| 36 | 45985-8171 | 75.40 | | |
| 40 | 45985-8181 | 77.94 | | |
| 12 | 45985-8112 | 60.16 | | |
| 16 | 45985-8122 | 62.70 | | |
| 20 | 45985-8132 | 65.24 | 2.90 | 1.57 |
| 24 | 45985-8142 | 67.78 | | |
| 28 | 45985-8152 | 70.32 | | |
| 32 | 45985-8162 | 72.86 | | |
| 36 | 45985-8172 | 75.40 | | |
| 40 | 45985-8182 | 77.94 | 2.90 | 1.57 |
| 12 | 45985-8113 | 60.16 | | |
| 16 | 45985-8123 | 62.70 | | |
| 20 | 45985-8133 | 65.24 | | |
| 24 | 45985-8143 | 67.78 | | |
| 28 | 45985-8153 | 70.32 | 2.90 | 1.57 |
| 32 | 45985-8163 | 72.86 | | |
| 36 | 45985-8173 | 75.40 | | |
| 40 | 45985-8183 | 77.94 | | |



16.3 REF

DIM. A

6.4 REF

44.28

36.00

24.00

12.00

TOP ROW
BOTTOM ROW

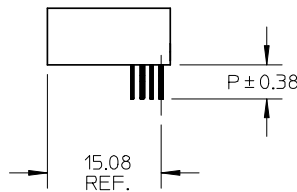
5

7.5

4.1

2.50 TYP.

1.27 TYP.

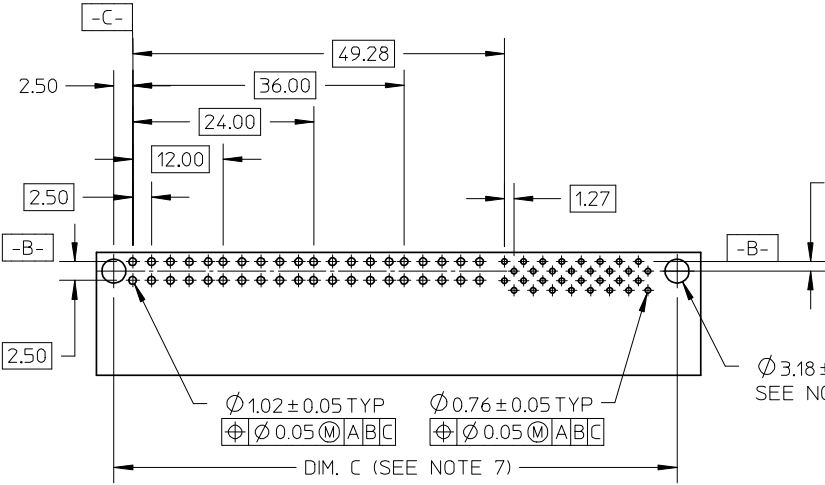


1.27 TYP

-A-

Ø 3.18 ± 0.08
SEE NOTE 7

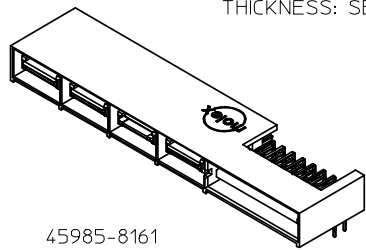
PCB LAYOUT: COMPONENT SIDE
THICKNESS: SEE CHART



Ø 1.02 ± 0.05 TYP
Φ Ø 0.05 (M) A B C

Ø 0.76 ± 0.05 TYP
Φ Ø 0.05 (M) A B C

DIM. C (SEE NOTE 7)



45985-8161
(SHOWN FOR REFERENCE)
SEE CHART

| | |
|---------------------|-------------|
| REVISED | DESCRIPTION |
| EC NO: UCP2007-3140 | 2008/03/03 |
| DRWN:MBANDURA | 2008/03/04 |
| CHKD: | |
| APPR:APATEL | 2008/03/06 |
| C | REV |

GENERAL TOLERANCES
(UNLESS SPECIFIED)

| | mm | INCH |
|----------|--------|-------|
| 4 PLACES | ± --- | ± --- |
| 3 PLACES | ± --- | ± --- |
| 2 PLACES | ± 0.25 | ± --- |
| 1 PLACE | ± --- | ± --- |

ANGULAR ±1/2°

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

DIMENSION STYLE
MM ONLY

| | |
|-------------|------------|
| DRAWN BY | DATE |
| SCHAFFER | 2005/05/17 |
| CHECKED BY | DATE |
| SAMIEC | 2005/05/17 |
| APPROVED BY | DATE |
| MARGULIS | 2005/05/18 |

MATERIAL NO.
SEE CHART

SIZE
A

SCALE
1:1

DESIGN UNITS
METRIC

THIRD ANGLE
PROJECTION

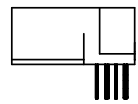
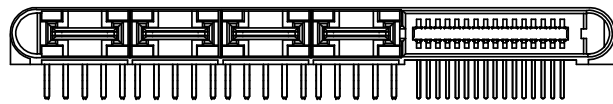
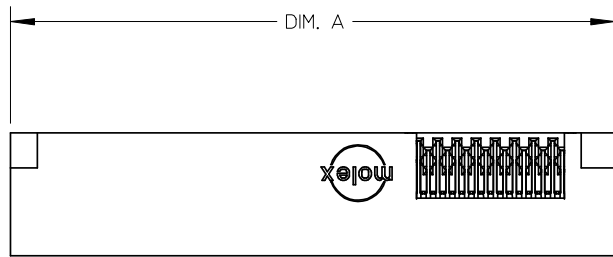
TITLE
LPH PLUG ASSEMBLY
RT ANGLE 8 CIRCUIT
POWER CONNECTOR

molex MOLEX INCORPORATED

DOCUMENT NO.
SD-45985-800

SHEET NO.
1 OF 5

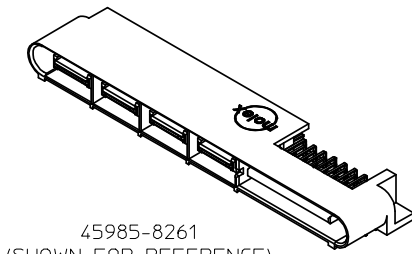
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX
INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION



GUIDE OPTIONS

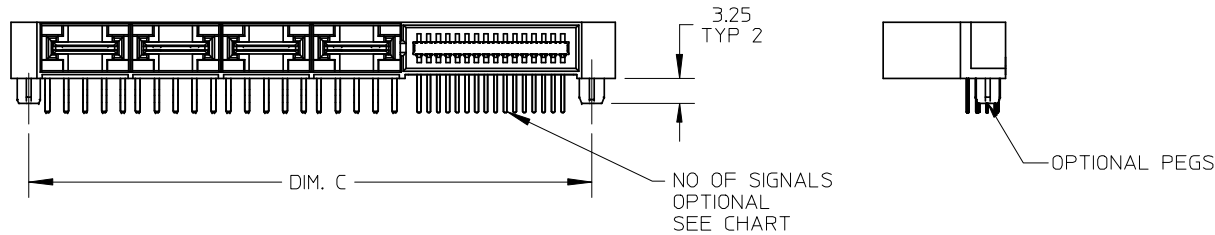
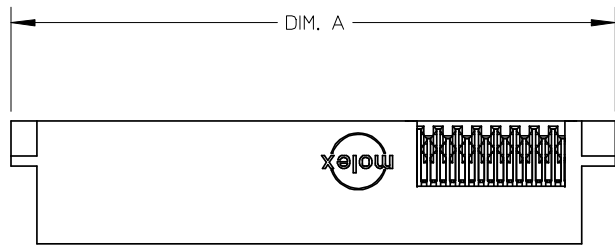
| NO OF SIGNAL | MATERIAL NUMBER | DIM A REF | DIM P | PCB THK |
|--------------|-----------------|-----------|-------|---------|
| 12 | 45985-8211 | 67.66 | 4.50 | 3.18 |
| 16 | 45985-8221 | 70.20 | | |
| 20 | 45985-8231 | 72.74 | | |
| 24 | 45985-8241 | 75.28 | | |
| 28 | 45985-8251 | 77.82 | | |
| 32 | 45985-8261 | 80.36 | 3.90 | 2.36 |
| 36 | 45985-8271 | 82.90 | | |
| 40 | 45985-8281 | 85.44 | | |
| 12 | 45985-8212 | 67.26 | | |
| 16 | 45985-8222 | 70.20 | | |
| 20 | 45985-8232 | 72.74 | 2.90 | 1.57 |
| 24 | 45985-8242 | 75.28 | | |
| 28 | 45985-8252 | 77.82 | | |
| 32 | 45985-8262 | 80.36 | | |
| 36 | 45985-8272 | 82.90 | | |
| 40 | 45985-8282 | 85.44 | 2.90 | 1.57 |
| 12 | 45985-8213 | 67.66 | | |
| 16 | 45985-8223 | 70.20 | | |
| 20 | 45985-8233 | 72.74 | | |
| 24 | 45985-8243 | 75.28 | | |
| 28 | 45985-8253 | 77.82 | | |
| 32 | 45985-8263 | 80.36 | | |
| 36 | 45985-8273 | 82.90 | | |
| 40 | 45985-8283 | 85.44 | | |

NOTE:
1. SEE SHEET 1 FOR DIMENSIONS NOT SHOWN.



45985-8261
(SHOWN FOR REFERENCE)
SEE CHART

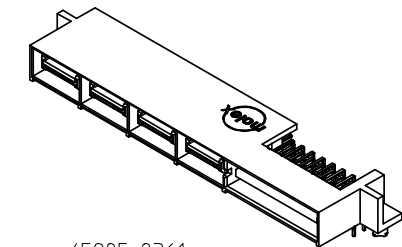
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|--|--|-------|--|-------------------------|-------------------------------------|--|---------------------------|--|--|
| REVISED EC NO: UCP2007-3140 DRWN:MBANDURA 2008/03/03 CHKD: 2008/03/04 APPR:APATEL 2008/03/06 DESCRIPTION REV | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM ONLY | | SCALE 1:1 | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | | |
| | | mm | INCH | DRAWN BY SCHAFFER | DATE 2005/05/17 | TITLE LPH PLUG ASSEMBLY RT ANGLE 8 CIRCUIT POWER CONNECTOR | | | |
| | 4 PLACES | ± --- | ± --- | CHECKED BY SAMIEC | DATE 2005/05/17 | | | | |
| | 3 PLACES | ± --- | ± --- | APPROVED BY MARGULIS | DATE 2005/05/18 | MOLEX INCORPORATED | | | |
| 2 PLACES | ± 0.25 | ± --- | MATERIAL NO. SEE CHART | | DOCUMENT NO. SD-45985-800 | | | | |
| 1 PLACE | ± --- | ± --- | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | SIZE A | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | |
| ANGULAR ±1/2° | | | | | | | | | |



MOUNTING PEG OPTIONS

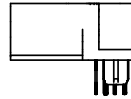
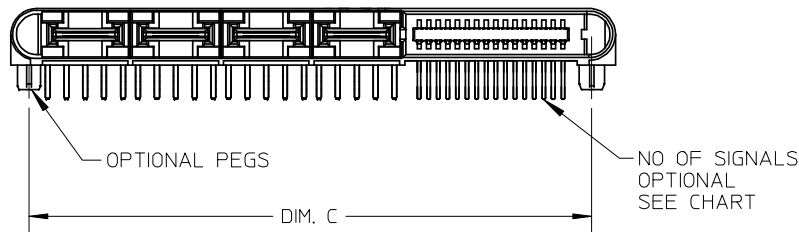
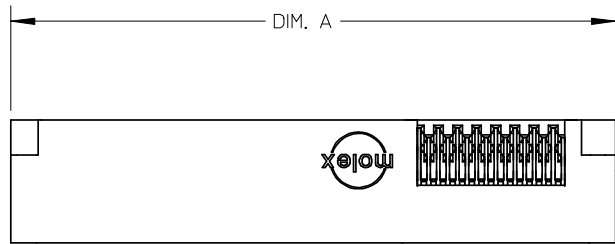
| NO OF SIGNAL | MATERIAL NUMBER | DIM A REF | DIM C | DIM P | PCB THK |
|--------------|-----------------|-----------|-------|-------|---------|
| 12 | 45985-8311 | 67.66 | 61.98 | 4.50 | 3.18 |
| 16 | 45985-8321 | 70.20 | 64.52 | | |
| 20 | 45985-8331 | 72.74 | 67.06 | | |
| 24 | 45985-8341 | 75.28 | 69.60 | | |
| 28 | 45985-8351 | 77.82 | 72.14 | | |
| 32 | 45985-8361 | 80.36 | 74.68 | | |
| 36 | 45985-8371 | 82.90 | 77.22 | 3.90 | 2.36 |
| 40 | 45985-8381 | 85.44 | 79.76 | | |
| 12 | 45985-8312 | 67.66 | 61.98 | | |
| 16 | 45985-8322 | 70.20 | 64.52 | | |
| 20 | 45985-8332 | 72.74 | 67.06 | | |
| 24 | 45985-8342 | 75.28 | 69.60 | | |
| 28 | 45985-8352 | 77.82 | 72.14 | 2.90 | 1.57 |
| 32 | 45985-8362 | 80.36 | 74.68 | | |
| 36 | 45985-8372 | 82.90 | 77.22 | | |
| 40 | 45985-8382 | 85.44 | 79.76 | | |
| 12 | 45985-8313 | 67.66 | 61.98 | | |
| 16 | 45985-8323 | 70.20 | 64.52 | | |
| 20 | 45985-8333 | 72.74 | 67.06 | 2.90 | 1.57 |
| 24 | 45985-8343 | 75.28 | 69.60 | | |
| 28 | 45985-8353 | 77.82 | 72.14 | | |
| 32 | 45985-8363 | 80.36 | 74.68 | | |
| 36 | 45985-8373 | 82.90 | 77.22 | 2.90 | 1.57 |
| 40 | 45985-8383 | 85.44 | 79.76 | | |

NOTE:
1. SEE SHEET 1 FOR DIMENSIONS NOT SHOWN.



45985-8361
(SHOWN FOR REFERENCE)
SEE CHART

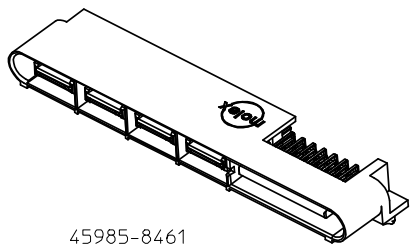
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|---|---------------------------------------|-------|----------------------------|-------------------------|---|---|------------------------|--|
| REVISED EC NO: UCP2007-3140 DRWN:MBANDURA 2008/03/03 CHKD: 2008/03/04 APPR:APATEL 2008/03/06 REV DESCRIPTION | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM ONLY | | SCALE 1:1 | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | |
| | | mm | INCH | DRAWN BY SCHAFER | DATE 2005/05/17 | TITLE LPH PLUG ASSEMBLY RT ANGLE 8 CIRCUIT POWER CONNECTOR | | |
| | 4 PLACES | ± --- | ± --- | CHECKED BY SAMIEC | DATE 2005/05/17 | | | |
| | 3 PLACES | ± --- | ± --- | APPROVED BY MARGULIS | DATE 2005/05/18 | MOLEX INCORPORATED | | |
| 2 PLACES | ± 0.25 | ± --- | MATERIAL NO. SEE CHART | | DOCUMENT NO. SD-45985-800 | | | |
| 1 PLACE | ± --- | ± --- | ANGULAR ±1/2° | | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | | SIZE A | | | | | |



GUIDE & MOUNTING PEG OPTIONS

| NO OF SIGNAL | MATERIAL NUMBER | DIM A REF | DIM C | DIM P | PCB THK |
|--------------|-----------------|-----------|-------|-------|---------|
| 12 | 45985-8411 | 67.66 | 61.98 | 4.50 | 3.18 |
| 16 | 45985-8421 | 70.20 | 64.52 | | |
| 20 | 45985-8431 | 72.74 | 67.06 | | |
| 24 | 45985-8441 | 75.28 | 69.60 | | |
| 28 | 45985-8451 | 77.82 | 72.14 | | |
| 32 | 45985-8461 | 80.36 | 74.68 | | |
| 36 | 45985-8471 | 82.90 | 77.22 | 3.90 | 2.36 |
| 40 | 45985-8481 | 85.44 | 79.76 | | |
| 12 | 45985-8412 | 67.66 | 61.98 | | |
| 16 | 45985-8422 | 70.20 | 64.52 | | |
| 20 | 45985-8432 | 72.74 | 67.06 | | |
| 24 | 45985-8442 | 75.28 | 69.60 | | |
| 28 | 45985-8452 | 77.82 | 72.14 | | |
| 32 | 45985-8462 | 80.36 | 74.68 | | |
| 36 | 45985-8472 | 82.90 | 77.22 | 2.90 | 1.57 |
| 40 | 45985-8482 | 85.44 | 79.76 | | |
| 12 | 45985-8413 | 67.66 | 61.98 | | |
| 16 | 45985-8423 | 70.20 | 64.52 | | |
| 20 | 45985-8433 | 72.74 | 67.06 | | |
| 24 | 45985-8443 | 75.28 | 69.60 | | |
| 28 | 45985-8453 | 77.82 | 72.14 | | |
| 32 | 45985-8463 | 80.36 | 74.68 | | |
| 36 | 45985-8473 | 82.90 | 77.22 | 2.90 | 1.57 |
| 40 | 45985-8483 | 85.44 | 79.76 | | |

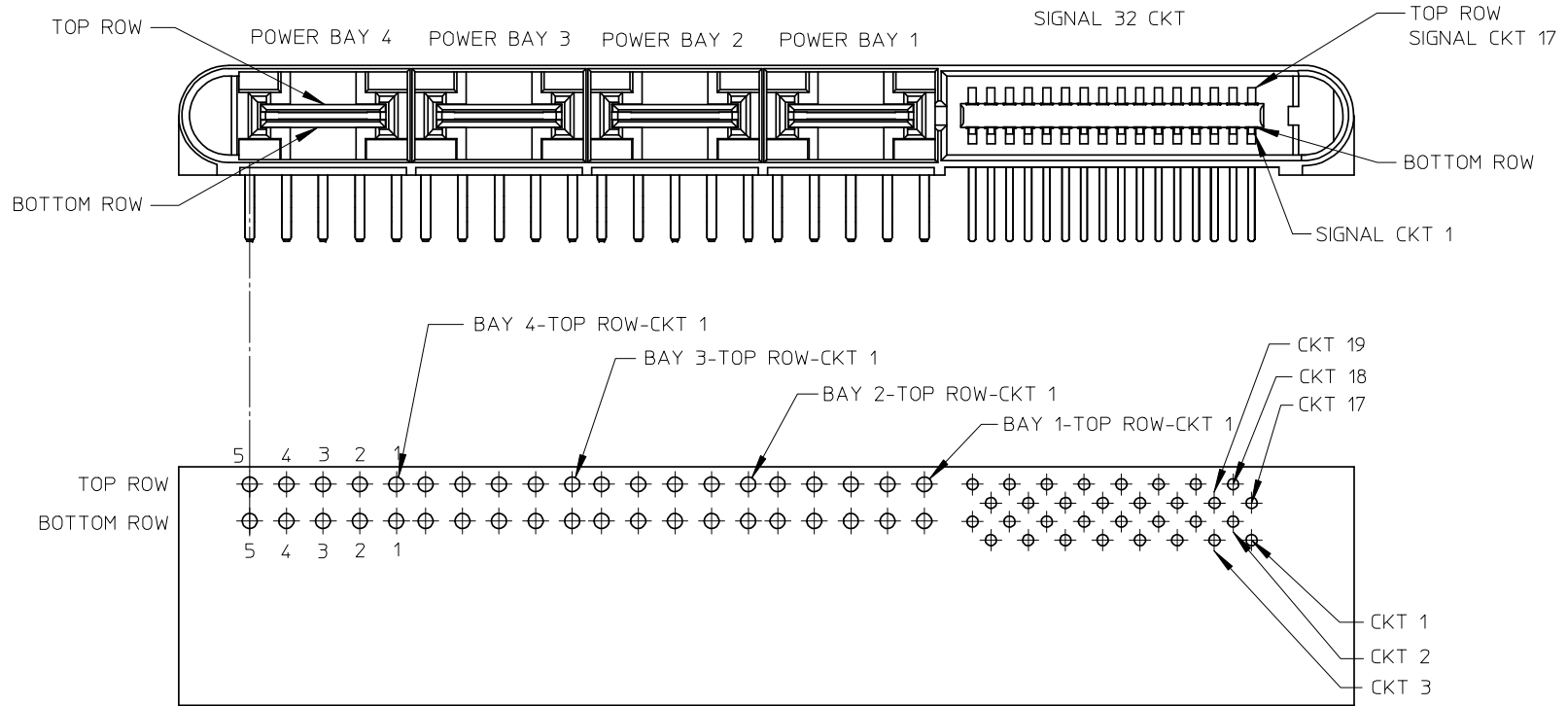
NOTE:
1. SEE SHEET 1 FOR DIMENSIONS NOT SHOWN.



45985-8461
(SHOWN FOR REFERENCE)
SEE CHART

| | | | | | | | | | |
|--|--|-------|-----------------------------------|-------------------------|--|--|---------------------------|--|--|
| REVISED EC NO: UCP2007-3140 DRWN:MBANDURA 2008/03/03 CHKD: 2008/03/04 APPR:APATEL 2008/03/06 DESCRIPTION REV | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM ONLY | | SCALE 1:1 | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | | |
| | | mm | INCH | DRAWN BY SCHAFFER | DATE 2005/05/17 | TITLE LPH PLUG ASSEMBLY RT ANGLE 8 CIRCUIT POWER CONNECTOR | | | |
| | 4 PLACES | ± --- | ± --- | CHECKED BY SAMIEC | DATE 2005/05/17 | | | | |
| | 3 PLACES | ± --- | ± --- | APPROVED BY MARGULIS | DATE 2005/05/18 | MOLEX INCORPORATED DOCUMENT NO. SD-45985-800 | | | |
| 2 PLACES | ± 0.25 | ± --- | MATERIAL NO. SEE CHART | | SHEET NO. 4 OF 5 | | | | |
| 1 PLACE | ± --- | ± --- | ANGULAR ±1/2° | | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | | SIZE A | | | | | | |

CIRCUIT IDENTIFICATION



PCB LAYOUT: COMPONENT SIDE

| | | | | | | | | |
|--|---------------------------------------|--------|--|-------------------------|--|---|------------------------|--|
| REVISED EC NO: UCP2007-3140 DRWN:MBANDURA 2008/03/03 CHKD: 2008/03/04 APPR:APATEL 2008/03/06 DESCRIPTION REV | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM ONLY | | SCALE 1:1 | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | |
| | | mm | INCH | DRAWN BY SCHAFFER | DATE 2005/05/17 | TITLE LPH PLUG ASSEMBLY RT ANGLE 8 CIRCUIT POWER CONNECTOR | | |
| | 4 PLACES | ± --- | ± --- | CHECKED BY SAMIEC | DATE 2005/05/17 | | | |
| | 3 PLACES | ± --- | ± --- | APPROVED BY MARGULIS | DATE 2005/05/18 | MOLEX INCORPORATED | | |
| | 2 PLACES | ± 0.25 | ± --- | MATERIAL NO. | | | | |
| 1 PLACE | ± --- | ± --- | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | |